

AMENDMENTS

In the Specification

Please insert the attached "Sequence Listing" as separately numbered pages 1-14 after the abstract, replacing all previously provided sequence listings.

Please replace the description of Figures 1 and 2 on page 1, lines 35-38 with the following:

Figure 1 provides the *Heteractic crispa* wild type sequence for the base isoform hcFP640 (hcCP) DNA and the chromoprotein encoded thereby.

Figure 2 provides the *Heteractic crispa* wild type sequence for the second isoform hcFP640 (hcCP) cDNA and the chromoprotein encoded thereby.

Please replace the description of Figure 4 on page 2, lines 3-4 with the following:

Figure 4 provides the nucleic acid sequence for the C148S mutant and the fluorescent protein encoded thereby (C148S according to GFP numbering; C143S according to self-numbering).

Please replace the description of Figure 6 on page 2, lines 7-8 with the following:

Figure 6 provides the nucleic acid sequence for the 44-9 (hcFRFP) (hcCP) mutant and the fluorescent protein encoded thereby (A5S, T39A, C148S, L181H,

P208L, K211E according to GFP numbering; A2S, T36A, C143S, L173H, P201L, K204E according to self-numbering).

Please replace the description of Figure 8 on page 2, lines 11-12 with the following:

Figure 8 provides the amino acid sequence and a nucleotide encoding sequence for the mutant 44-6 described herein. The Crispa 44-6 mutant possesses six amino acid substitutions vs. wild type: A2S, E63A, C143S, L173H, P201L.

Please replace the description of Figure 10 on page 2, lines 15-16 with the following:

Figure 10 provides the amino acid and nucleic acid sequence for the mutant FP10-cr1 (hcFRFP-2) (HcRed-2A). Panel A is the amino acid sequence of FP10cr1. Panel B is a “humanized” nucleotide sequence encoding the FP10cr1 mutant of Panel A. Panel C is an alternative cr1 amino acid. Panel D is the amino acid sequence encoding the alternative sequence of Panel C.

Please replace the description of Figure 12 on page 2, lines 19-20 with the following:

Figure 12 provides the amino acid and encoding nucleotide sequence for the Cr-449-tandem fusion protein (the 4-amino acid linker between monomers is in double underline).

Please replace the description of Figure 13 on page 2, lines 21-22 with the following:

Figure 13 provides the amino acid and encoding nucleotide sequence for the Cr-449-tandem-actin fusion protein according to the subject invention (the 4-amino acid linker between Cr-449 monomers is noted in double underline; the 4-amino acid linker between the second Cr-449 and actin is noted in dashed underline).

Please replace the description of Figure 15 on page 2, lines 25-26 with the following:

Figure 15 provides the amino acid and nucleotide sequence of an alternative embodiment of c1485 (C148S according to GFP numbering; C143S according to self-numbering).

Please replace the description of Figure 16 on page 2, lines 27-28 with the following:

Figure 16 provides the amino acid and nucleotide sequence of an alternative embodiment of 44-6. The crispa 44-6 mutant possess six amino acid substitutions vs. wild type: A2S, T36A, E63A, C143S, L173H, P201L.

Please replace the description of Figure 17 on page 2, lines 29-30 with the following:

Figure 17 provides the amino acid and nucleotide sequence of an alternative embodiment of the wild type *Heteractis crispa* base isoform hcCP.

Please replace the paragraph bridging pages 32, line 37 to page 33, line 5 with the following:

This mutant possesses the following six amino acid substitutions vs. wild type: A2S, T36A, A65E E63A, C143S, L173H, P201L (self-numbering). (for GFP numbering. See e.g., Matz et al., supra.) ~~(self-numbering)~~ The amino acid sequence of this mutant is provided in Figure 8 (SEQ ID NO. 10) and the nucleic acid coding sequence therefore is provided in Figure 8 (SEQ ID NO:09). The excitation and emission spectra of mut44-6 was measured using the protocol describe in: Matz et al., Nature Biotech., 1999, 17: 969-973) and is provided in Figure 9. An alternative embodiment of this mutant is provided in Figure 16 (SEQ ID Nos. 25 and 26).

Please replace the Abstract on page 40 with the following:

Nucleic acid compositions encoding Stichodactylidaen chromoproteins and fluorescent mutants thereof, ~~as well as the polypeptide compositions encoded by the same, are provided.~~ The proteins of interest are proteins that are colored and/or fluorescent, where this feature arises from the interaction of two or more residues of the protein. Also of interest are proteins that are substantially similar to, or mutants of, the above specific proteins, including non-aggregating mutants and mutants with modulated oligomerization characteristics as compared to wild type. Also provided are fragments of the nucleic acids and the peptides encoded thereby, as well as antibodies to the subject proteins and transgenic cells and organisms. The subject protein and nucleic acid compositions find use in a variety of different applications. Finally, kits for use in such applications, e.g., that include the subject nucleic acid compositions, are provided.